
CHAPTER 86 APPROVE A MINIMUM EQUIPMENT LIST FOR A FAR PART 125 OPERATOR

Section 1 Background

1. PTRS ACTIVITY CODES.

- Initial Approval: 1321
- Revision: 1322

3. OBJECTIVE. The objective of this task is to determine that an operator meets the regulatory requirements for safe and appropriate flight, with certain instruments and equipment inoperative, under FAR Part 125. Successful completion of this task results in the approval or disapproval of a Minimum Equipment List (MEL) document and the issuance or denial of a letter of authorization to operate under FAR Part 125 with an MEL.

5. GENERAL.

A. **Authority.** FAR § 125.201 authorizes flight with inoperative equipment under specific conditions.

(1) Inspectors may approve MEL's for FAR Part 125 operators as part of the certification process. (Refer to Chapter 72, Conduct Certification of a FAR Part 125 Operator.)

(2) Holders of full deviations from FAR Part 125 operate under FAR Part 91, Subpart F. Inspectors may issue MEL authorization to deviation holders using the procedures for FAR Part 91 MEL's. (Refer to Chapter 58, Approve a Minimum Equipment List.)

B. Definitions.

(1) *Aircraft Evaluation Group (AEG).* The AEG is the FAA office responsible for the development and publication of an approved MMEL for those aircraft within its area of responsibility.

(2) *Aircraft Flight Manual (AFM).* The AFM contains the operational limitations and performance standards for an aircraft. The term AFM can apply to either an airplane flight manual or a rotorcraft flight manual. The FAA requires an AFM for type

certifications. The responsible FAA Aircraft Certification Office (ACO) approves an AFM.

(3) *Aircraft Maintenance Manual (AMM).* The AMM is the source document for maintenance procedures for an aircraft. The term AMM can apply to either an airplane maintenance manual or a rotorcraft maintenance manual. The FAA requires the AMM for type certification.

(4) *Airworthiness Directive (AD).* An AD is a mandatory airworthiness requirement for a particular make and model aircraft or installed equipment. An AD is supplementary to the aircraft's original airworthiness approval.

(5) *ATA Numbering System.* The standard Air Transportation Association (ATA) numbering system refers to systems on different aircraft in a standardized manner. MMEL's use the ATA numbering stem.

(6) The term *Calendar Days* includes all days, with no exclusion for weekends and holidays.

(7) *Deactivation* means to make a piece of equipment or an instrument unusable by the pilot/crew by preventing its operation.

(8) *Deferred maintenance* is the postponement of repair or replacement of an item of equipment or an instrument.

(9) *An equipment list* is an inventory of equipment installed by the manufacturer or operator on a particular aircraft.

(10) *Flight Operations Evaluation Board (FOEB).* The FOEB is composed of FAA personnel who are operations, airworthiness, avionics, and aircraft certification specialists. The FOEB develops an MMEL for a particular aircraft type under the direction of the AEG.

(11) *Inoperative* means a system or component has malfunctioned to the extent that it does not accomplish its intended purpose or is not consis-

tently functioning within its approved operating limits or tolerances.

(12) *Kinds of Operations List (KOL)*. The KOL specifies the kinds of operations (e.g., VFR, IFR, day, or night) in which the aircraft can be operated. The KOL also indicates the installed equipment that may affect any operating limitation. Although the certification rules require this information, there is no standard format; consequently, the manufacturer may furnish it in various ways.

(13) *Letter of Authorization (LOA)*. The FSDO issues an LOA to the operator when the FSDO authorizes the operator to operate under the provisions of an MEL. Together, the LOA and the operator's MEL constitute a Supplemental Type Certificate (STC). The operator must carry the STC in the aircraft during its operation.

(14) *Maintenance* is the inspection, overhaul, repair, preservation, or replacement of parts. This definition excludes preventive maintenance (see paragraph (21) following). After a mechanic performs maintenance other than preventive maintenance, a properly certificated maintenance person must approve the aircraft for return to service.

(15) *Master Minimum Equipment List (MMEL)*. An MMEL is a list of equipment and instruments that may be inoperative on a specific type of aircraft. It is also the basis for the development of an individual operator's MEL.

(16) *Minimum Equipment List (MEL)*. An MEL is a list of equipment and instruments that may be inoperative on a particular make and model of aircraft. The MEL permits operation of the aircraft under specified conditions with certain equipment inoperative. A FAR Part 125 MEL is based on the MMEL but is approved by FSDO inspectors. The FAA considers the MEL as an STC.

(17) The *next required inspection* is an inspection required under an FAA-approved inspection program, a 100-hour inspection, or an annual inspection, as appropriate.

(18) *Operator* refers to an individual or company (corporation, entity, etc.) and, as used in this chapter, refers to holders of FAR Part 125 operating certificates.

(19) *O and M Procedures* in the MMEL refer to specific *operating* conditions and limitations, and to specific *maintenance* procedures used to deactivate inoperative items.

(a) An O symbol in column 4 of the MMEL indicates that a specific operations procedure must be accomplished before or during operation with the listed item of equipment inoperative. Normally, the flight crew accomplishes these procedures; however, other personnel, such as maintenance personnel, may be qualified and authorized to perform the procedures.

(b) An M symbol in column 4 of the MMEL indicates that a specific maintenance procedure must be accomplished before beginning operation with the listed item of equipment inoperative. Normally, maintenance personnel accomplish these procedures; however, other personnel, such as the flight crew, may be qualified and authorized to perform certain functions. Qualified maintenance personnel must perform procedures requiring specialized knowledge, skills, or the use of tools, or test equipment.

(20) A *placard* is a decal or label with letters at least 1/8-inch high. The operator or mechanic must place the placard on or near inoperative equipment or instruments so that it is visible to the pilot or flight crew and alerts them to the inoperative equipment.

(21) The term *preventive maintenance* refers to simple or minor preservation operations and/or the replacement of small standard parts not involving complex assembly. FAR Part 43, Appendix A(c) contains a list of preventive maintenance items. Qualified mechanics or certificated pilots may accomplish preventive maintenance and approve the aircraft for return to service.

(22) *Procedures document*, as referred to in this chapter, pertains to a separate document containing the O and M procedures developed by the operator and any other operating information applicable to operation with an MEL, such as the "as required by the FAR" items that list the FAR by part and section or stipulate the operating conditions.

(23) *Proposed Master Minimum Equipment List (PM MEL)*. The PM MEL is the working document

used as the basis for development of the MMEL. Normally, the manufacturer proposes it during the certification process. However, an operator of a unique type aircraft, for which an MMEL does not exist, may submit a PMMEL for FAA approval.

(24) *Return to service* has two applications. An appropriately certificated person approves an aircraft for return to service after an inspection or after maintenance. A certificated pilot, in fact, returns the aircraft to service after conducting an appropriate preflight and accepting the aircraft for flight.

(25) *Supplemental Type Certificate (STC)*. An STC is a major change in type design not great enough to require a new application for a type certificate under FAR § 21.19. An example would be installation of a powerplant different from what was included in the original type certificate.

(26) *Type Certificate Data Sheets and Specifications (TCDS)* is a document issued by the FAA which describes the aircraft's airworthiness requirements relating to a specific type and make and model of aircraft. These documents are available at a FSDO.

7. BACKGROUND.

A. **MEL Concept.** The MEL concept was first adopted in 1954 for large airplanes used by air carriers and commercial operators. The FAA recognized that, under specified flight conditions, flights could be conducted safely with certain instruments and equipment inoperative. However, before October 9, 1990 the provisions of FAR Part 91 applied to operators who operated for private carriage, and operations with inoperative instruments or equipment were not permitted. In addition, such operations were also prohibited for aircraft which had no MMEL.

B. **Required Equipment.** Much of the equipment installed in an aircraft is required by the kinds of operations the aircraft is certificated to conduct, e.g., VFR day, VFR night, IFR, etc., or by the airworthiness standards for the type design, e.g., FAR Part 23, 25, 27, or 29. Other, nonessential equipment may be installed for the convenience of the operator or passengers.

(1) The FAR require that the aircraft and all installed equipment meet the airworthiness standards under which it was type certificated

and continue to meet those standards during its service life.

(2) Additionally, the FAR require that all equipment installed on an aircraft must be operative, except under the provisions of an MEL or FAR § 91.213.

C. **MEL Use.** The FAR permit use of an MEL if the FAA finds that literal compliance with those equipment requirements is not necessary in the interest of safety, i.e., because the equipment is additional or redundant.

(1) The MEL concept has improved aircraft use and schedule reliability while continuing to provide an acceptable level of safety.

(2) An approved MEL is an FAA-controlled document based on the FAR and applicable to a particular U.S. operator or authorized foreign operator of U.S. registered aircraft.

9. THE MMEL. Before including an item on an MMEL, potential and historical operation with the item inoperative is critically evaluated relative to its potential impact on safety. This evaluation consists of appropriate analysis, demonstration, or test. The subsequent failure of the next critical component and the interrelationships between inoperative items are considered. The impact on AFM procedures and the increase in crew workload are also considered.

A. **Limitations.** The MMEL may not conflict with AFM limitations, AMM, emergency procedures, or airworthiness directives. Suitable limitations in the form of placards, maintenance procedures, crew operating procedures, and other restrictions as necessary are specified in the MEL to ensure that an acceptable level of safety is maintained.

B. **MMEL Contents.** The MMEL lists all items of installed equipment that may be inoperative. The MMEL does not contain obviously required items such as wings, flaps, rudders, etc. Inoperative items may include instruments and equipment required by the airworthiness standards under which the aircraft is type certificated, instruments and equipment required by the operating rules, and items in excess of these requirements.

(1) The MMEL contains a condition that allows passenger convenience items such as galleys,

lavatories, and entertainment systems to be inoperative with appropriate conditions and limitations should the operator list them in the MEL.

(2) Items specifically addressed elsewhere in the MMEL or in an ATA chapter may not be listed under passenger convenience items in the MEL.

(3) ITEMS NOT LISTED ON THE MMEL MUST BE OPERATIVE.

(4) The MMEL is not a list of items required to be in the aircraft.

(5) The MMEL and MEL do not provide the authority to install or remove an item from the aircraft.

(6) The MMEL may include multiple versions of particular items (e.g., VHF communications systems, fire extinguishers) which are installed on different models or series of the aircraft covered by the MMEL. Only the item appropriate to the specific aircraft would be selected to be included in the MEL.

(7) The MMEL for an aircraft does not cover equipment installed or modified under STC's. Any STC or other major modification may make the MMEL invalid for that particular modified aircraft.

C. MMEL Intent. The MMEL allows certain items to be inoperative or deactivated for a minimum period of time until repair can be accomplished.

(1) Operators are responsible for establishing a controlled and effective repair program which includes tracking of inoperative items and coordinating parts, personnel, facilities, and procedures necessary to ensure timely repair.

(2) Paragraph 21, following, provides limitations on the duration of operation with inoperative equipment. The time limits contained in that paragraph should not be exceeded.

(3) The operator's manual or MEL, as appropriate, must include an acceptable method of compliance with repair intervals.

D. Inoperative Components within a System. MEL provisions for inoperative items which are components of a system usually consider that the

system overall is operative. When the system is inoperative, however, there usually is no need for the component to be operative. Therefore, any component directly associated with and having no function other than supporting a system listed in the MEL may be inoperative when that system is inoperative. However, warning/caution systems associated with the inoperative system must be operative unless relief is specifically authorized in the MMEL.

E. Different MMEL's. It is erroneous to assume that relief granted for an item under one MMEL means that similar relief will be applicable to the same item in another MMEL. Relief for the particular item which is not covered may not have been requested for consideration in the MMEL. It is incumbent upon the operator to request consideration of desired items and provide supporting documentation.

11. REPORTING INOPERATIVE INSTRUMENTS OR EQUIPMENT. When an item becomes inoperative, it must be reported by making an entry in the aircraft's maintenance record or logbooks as prescribed by FAR § 125.323. The item must then be either repaired in accordance with an acceptable maintenance procedure or deferred per the MEL before further operation.

A. Responsibility. In addition to the specified MEL conditions and limitations, the certificate holder is responsible for determining that the aircraft is in condition for safe operation. The certificate holder must develop detailed procedures for release of the aircraft with inoperative items.

B. Airworthiness Release. Information regarding an airworthiness release, aircraft maintenance record or logbook entry, or other approved documentation is contained in FAR § 125.411.

(1) Following the release for return to service, the appropriate conditions and limitations as prescribed by the MEL must be applied for continued operations.

(2) When preparing to operate with multiple inoperative items, the interrelationship between those items and the effect on aircraft operation and crew workload must be considered by the certificate holder and the crew.

13. MEL DEVELOPMENT. A FAR Part 125 operator develops an MEL from the MMEL. The operator must consider its particular aircraft's equipment configuration and operational conditions.

A. Considerations for MEL Development.

(1) The operator's MEL may not be less restrictive than the MMEL, i.e., the MEL may not contain relief for items not in the MMEL.

(2) Where the MMEL shows a variable number of items installed, the MEL must reflect the actual number of items installed in the operator's aircraft. If there are several configurations within the operator's fleet, the MEL will reflect the number of items installed on each aircraft, referenced by N-number.

(3) Where the MMEL states, "As required by FAR," the MEL must reflect the actual requirement of the FAR applicable to the operator's particular operations. For example, where the FAR require DME to be operable above FL 240 and the DME is inoperative, the operator's MEL should state, "Aircraft may not be operated above FL 240."

(4) Where the MMEL contains an asterisk (*), (M) symbol, (O) symbol, or any combination thereof, the operator's MEL should reflect the same symbols, unless the FAA approves an alternative procedure. The operator should develop the required procedures for inoperative equipment for the MEL. For example, the MMEL may contain a *(M) symbol with the provision "provided the valve is closed." The operator is required to develop and publish in its MEL or other suitable manual the detailed procedures involved in closing and testing the valve and also installing the inoperative placard.

(5) Where the MMEL contains the (***) symbol in Column 1, the MEL should reflect this item only after the approving office has determined that the item is installed on one or more of the operator's aircraft. The (***) symbol indicates that an item, which is not required by regulation, had been installed on some models of the aircraft covered by the MEL. The symbol shall not be carried forward to the operator's MEL.

(6) To assist operators, several manufacturers have produced manuals of recommended procedures for inoperative equipment. The FOEB

normally considers these procedures when approving the MMEL. When manufacturer-recommended procedures exist, the operator may use them as published or to develop equivalent procedures, which the FSDO approves.

(7) Some operators use their MEL's as a comprehensive document to control items for administrative purposes. In such cases, operator MEL's may include items not contained in the MMEL; however, the FAA grants no relief for these administrative control items.

(8) The repair intervals specified in the MMEL by the categories A, B, C, D, etc., must be retained in the operator's MEL. The MEL may not relax the intervals. Components or subsystems of items categorized in the MMEL, but which are not themselves listed in the MMEL, have the same repair interval as their particular system and must retain the same repair interval in the MEL if they are listed as separate items.

(9) An operator's MEL may differ in format from the MMEL, but the different format cannot make the MEL less restrictive than the MMEL.

(10) An operator bases the MEL on a particular revision of the MMEL. The operator's MEL revision number does NOT have to be the same as that of the MMEL. For example, a newly certificated operator may be basing an original MEL on revision 23 of the MMEL for the aircraft. The next revision may be the operator's MEL revision 1 based on MMEL revision 24. Automated MEL approval documents will list both the operator MEL revision number and the MMEL revision number.

(11) Administrative control items and passenger convenience items may not include items or subsystem of items addressed on the MMEL.

(12) Equipment listed on an MMEL but not actually installed on the aircraft should not appear on the MEL. Inspectors should verify that the proposed MEL corresponds to equipment on the aircraft before approval of the MEL.

B. Fleet Approvals. An operator may have multiple aircraft configured exactly alike and operated interchangeably as a fleet.

(1) The FAA will usually accept duplicate MEL's for the make and model of identically

altered aircraft. For FAR Part 125 operators the operations specifications and a company manual, such as a maintenance manual, must list all aircraft registration numbers and serial numbers for fleet approval.

(2) The FAA may approve one MEL for fleet operators with the same make and model of aircraft, but with minor differences in equipment, provided that it contains a differences page listing the registration/serial numbers and the items of equipment that are different. The operator may copy the approved MEL to be carried aboard these aircraft, but all aircraft registration numbers and serial numbers for the fleet approval must be listed appropriately.

(3) Fleet operator with different make and model aircraft, or with the same make and model aircraft but with major differences in configuration, must have an original MEL for each aircraft by serial and registration number.

15. REVISIONS. Procedures exist to revise both MMEL's and MEL's. FSDO's handle MEL revisions locally, but MMEL revisions require more extensive coordination.

A. MMEL Revisions. Since the MMEL is designed to assist the operator by providing relief, the MMEL must be a dynamic, easily revised document that responds to operator experience and specific requests.

(1) The FOEB makes changes to the MMEL. The FOEB will consider those items that users request based on operational considerations which indicate needed relief. The operator or the FAA can initiate changes; however, other industry sources may also request changes.

(a) Inspectors should encourage operators to submit requests for additional MMEL relief as soon as the need becomes apparent to them.

(b) Operators should route these requests through principal inspectors for concurrence, nonconcurrence, or comment.

(c) When necessary, the FOEB may propose changes without the full revision process.

(d) The operator must furnish the following information:

(i) A copy of the STC or FAA Form 337 that documents approval of each equipment installation and the associated limitations listed in the AFM supplement or on the 337 (required to account for installation differences and maintain MMEL relief consistent with the limitations).

(ii) A system description that details the interface of the equipment with the crew, i.e., location, controls, operation, use, etc.

(iii) A complete description of the transfer-of-function when an item is inoperative (i.e., not required for the flight, as per crew procedures, because of alternate systems, etc.

(e) If the FAA determines that the equipment has been previously considered by the FOEB for inclusion on the MMEL and denied, or if the FOEB convenes and denies inclusion, the FAA will not grant relief. The equipment must be operational before the aircraft can take off.

(f) If the FOEB determines that the equipment should be added to the MMEL, the operator will receive the updated MMEL and must prepare O and M procedures for that piece of equipment, if required.

(g) The FSDO should review these petitions to ensure they contain the above information before forwarding the petitions to the FOEB.

(2) The operator must provide justification for the changes. The amount of justification required for a change is related to the impact on safety. Changes having a greater impact require more detailed research and documentation. Some proposals may require demonstration and/or evaluation flights, which the FOEB or an authorized representative will conduct or witness.

(3) The FOEB will periodically schedule a joint FAA/industry meeting to examine new submissions and, if necessary, re-examine any MMEL actions taken since the last public meeting. The FAA will provide the operator sufficient advance notification of the meeting date and cut-off date for submission of proposals.

B. MEL Revision. An operator may request MEL revisions through its principal inspector, or the FAA may issue a revision to the MMEL on which the MEL is based.

(1) When an operator requests an MEL revision, that revision may be equal to or more restrictive than the MMEL, and require no FOEB action; or it may be less restrictive than the MMEL, and require FOEB action for approval. The AEG determines whether a revision is more or less restrictive than the operator's MMEL.

(a) Revisions equal to or more restrictive than an MMEL are within the provisions of an existing MMEL, but the operator must still submit them to the FSDO for approval.

(b) For revisions less restrictive than the MMEL, the operator must use the same process for MMEL revisions as above. The FAA processes the proposal in the same manner. When the operator receives notification of approval of the less restrictive revision, the operator begins the process of revising the MEL to incorporate the additional relief.

(2) When the FAA initiates a change to an operator's MEL, it could be as a result of an FAA revision to the MMEL. Operators, manufacturers, and FSDO's receive postcard notification of the revision through the FAA's automated MMEL subsystem.

(a) The notification indicates whether the revision is more or less restrictive than the previous MMEL. Revisions that are less restrictive are interim revisions and carry the current revision number and a letter; e.g., a less restrictive revision following revision 5 will be labeled 5a. Revisions that are more restrictive will carry the next number in succession; e.g., the more restrictive revision following revision 5 will be revision 6.

(b) If an MMEL revision is less restrictive than the MEL, the operator has the option of revising the MEL to correspond to the MMEL. The FAA will not require revision of the MEL, and the operator may continue to operate under the more restrictive MEL.

(c) If an MMEL revision is more restrictive than the original MMEL, all MEL's based on that MMEL must be revised.

(3) Major modification to an aircraft (STC, FAA Form 337, type certificate amendment) may invalidate the MEL for that aircraft. Operators should review their MEL or proposed MEL to assess the impact of any modification. In some

cases, the modification may require a revision to the MMEL.

17. OPERATIONS (O) AND MAINTENANCE (M) PROCEDURES.

A. **O and M Guidelines.** Guidelines for O and M procedures may be found in the preambles of MMEL's for FAR Parts 23, 27, 29, and 41 aircraft. Those guidelines indicate what the O or M procedure must cover.

(1) Manufacturers normally develop such procedures for transport category aircraft. However, aircraft certificated under FAR Part 23, i.e., normal, utility, aerobatic, and commuter category airplanes, do not generally have procedures developed by the manufacturer.

(2) Operators must specifically describe each O and M procedure which appears in the MMEL.

B. **Specific Steps and Actions.** O and M procedures should be described in terms of specific steps and actions to be followed, and should detail each process from beginning to end. The procedures should answer the following questions;

(1) How does a person accomplish the procedure?

(2) What is done first? second? etc.

(3) What action competes the procedure?

19. MEL USE IN SERVICE.

A. **Release.** The MEL is applicable only to the release of a flight with inoperative instruments and equipment.

(1) The Pilots Operating Handbook (POH) or the AFM addresses in-flight failures; the PIC handles them accordingly.

(2) When a PIC finds an inoperative item, the PIC must enter the discrepancy in the aircraft's maintenance record/logbook.

(3) The discrepancy must be either repaired in accordance with the maintenance manual or deferred as per the MEL before the next flight.

B. **Removal from Service.**

(1) A defect entered into the aircraft's maintenance record/logbook in effect removes the aircraft from service. The aircraft remains out of service until the defect is corrected or deferred and an appropriate maintenance person returns the aircraft to service.

(2) Maintenance personnel can reflect this approval for return to service in the aircraft's maintenance record/logbook in one of two ways:

(a) An entry showing the corrective action that was taken for the defect; appropriate maintenance personnel sign the entry and include the signer's certificate number.

(b) A deferral statement with the signature of a person authorized to defer needed maintenance for the operator.

C. **Deferral.** The FAA grants deferral per the MEL only after maintenance personnel have determined that the aircraft is safe to be flown and that the specific conditions, limitations, and procedures for that item have been accomplished. The satisfactory accomplishment of all procedures is primarily the responsibility of the operator. This responsibility may be delegated to qualified persons when published in the operator's manual or MEL.

D. **Removal/Deactivation.** Those who elect to operate without an MEL must remove (FAR § 91.213(d)(3)(i) or deactivate (FAR § 91.213 (d)(3)(ii)) and placard any inoperative item.

(1) Removal of any item that affects an aircraft's airworthiness requires following an approved procedure. A properly certificated maintenance person must record the removal in accordance with FAR § 43.9. A person authorized by FAR § 43.7 must make the appropriate adjustments to the aircraft's weight and balance information and the equipment list, complete and submit FAA Form 337, and approve the aircraft for return to service.

(2) The operator must evaluate any proposed deactivation to ensure there is no adverse effect that could render another system less than fully capable of its intended function.

(a) A certificated pilot can accomplish deactivation involving routine pilot tasks, such as turning off a system. However, this deactivation must qualify under the definition of preventive maintenance in FAR Part 43, Subpart A.

(b) If the deactivation does not qualify as preventive maintenance, a properly certificated maintenance person must perform the deactivation. this person must record the deactivation in accordance with FAR § 43.9.

(3) Placarding can be as simple as writing the word **inoperative** on a piece of masking tape and attaching it to the inoperative equipment or to its cockpit control. Placarding is essential since it reminds the pilot that the equipment is inoperative. It also ensures that future flight crews and maintenance personnel are aware of the discrepancy.

21. REPAIR INTERVALS.

A. **Source.** The "Definitions" section of the MMEL establishes repair intervals. The AEG assigns each item of the MMEL, with the exception of passenger convenience items, a specific repair interval category. Components or subsystems of an item listed in an MMEL have the same repair interval as the item (A, B, C, D, etc.). The operator must retain these intervals in the operator's approved MEL.

B. **Excess Items.** For components or systems in excess of those required for normal operations, the operator may use C intervals. For example, if the MMEL requires one altitude alerting system (B category repair interval) but two systems were installed, maintenance for the failure of one system could be deferred for 10 days as per the C repair interval. Failure of the second system requires at least one system be repaired within three days, as indicated by the B repair interval requirements.

C. **Inability to Meet Repair Deadlines.** There may be instances when an operator cannot meet a repair deadline because of unusual circumstances, such as a nationwide unavailability of a certain part. In these instances, the FAA may grant continuing relief as provided in the Operations Specifications; however, these occurrences should be rare, and FAA must carefully control them.

(1) The operator must have a tracking system to record when an MEL item becomes inoperative and when it is repaired.

(2) When an operator becomes aware that it cannot meet a repair deadline, it must document the time extension required and the reasons for the inability to meet the deadline.

(3) The operator must notify its PMI in writing within 24 hours after deciding to extend the time limit. The PMI will review the reasons for the extension.

(4) Based on the PMI's review, the FAA will decide whether to allow the time limit extension.

(a) If the PMI approves the extension, the PMI must notify the Flight Standards division in the region of each extension.

(b) If the operator abuses the continuing relief, the PMI may revoke the appropriate paragraph of the operations specifications.

D. *Items that Cannot be Extended.* Certain items, such as Full Authority Digital Electronic Controls (FADEC), qualify for time limited release based on the specifications in the TCDS. The time limits specified for such items may not be extended. The notation, "and no extensions are authorized," will appear on the MMEL for such an item.

23. ADDITIONAL ITEMS.

A. *Passenger Convenience Items.* Passenger convenience items are related to the comfort or entertainment of the operator's passengers. They include items such as galley equipment, movie equipment, ash trays, stereo equipment, and overhead reading lamps.

(1) Passenger convenience items do not carry a specific repair interval. However, the FAA expects the operator to repair these items within a reasonable time.

(2) These items will generally be listed individually in ATA, Chapter 25. However, an item may be included elsewhere in the document under a more appropriate chapter, as long as it is clearly identified as a passenger convenience item. A principal inspector will review the operator's proposed passenger convenience item list to ensure that:

(a) No passenger convenience item appears elsewhere in the MMEL, or is included as a subsystem of an item on the MMEL.

(b) No passenger convenience item affects airworthiness.

B. *Administrative Control Items.* Operators may choose to use administrative control items within an MEL to track items or provide information to their employees. However, another FAA document (such as the manufacturer's structural repair manual or an AD) may contain conditions and limitations for the item and relief. To be included on an MEL, an administrative control item cannot be included elsewhere on the MMEL, part of a subsystem on the MMEL, or an item for which no relief is granted on the MMEL.

(1) Administrative control items would appear in the appropriate ATA chapter and would not have a repair interval category. Examples are cockpit procedures cards, medical kits, crash axes, life vests, etc. Seat belts, tray tables, under-seat restraints, and similar items are covered by MMEL items and consequently are not administrative control items.

(2) Approved administrative control items should be listed with the number installed and the number required being equal, with either no remarks or a reference to another document. The content of the reference document (such as maintenance parameters) should not be included on the MEL.

(3) Principal inspectors will examine each proposed administrative control item to ensure that the above conditions are met. At their discretion, items may be included on an MEL. As previously stated, administrative control items must be operative, just as items not included in the MMEL must be operative.

(4) If relief other than that granted by an approved document is sought for an administrative control item, a request must be submitted using the FOEB process. If approved, the item becomes an MMEL item rather than an administrative control item.

25. AIRCRAFT USED IN MULTIPLE OPERATIONS. FAR § 91.213(c) allows a person who has an approved MEL under FAR Part 125 to

use that MEL for FAR Part 91 operations. The FAR Part 125 MEL must specify requirements for authorized FAR Part 91 operators to comply with the more restrictive provisions established in the approved MEL. It is important that operators be capable of conducting operations in accordance with the MEL. This includes, but is not limited to, accomplishing required maintenance in accordance with the certificate holder's requirements.

A. **Leased Aircraft.** The use of a leased aircraft creates a situation where several persons may be operating the same aircraft under different regulations. The FAA will not approve multiple MEL's, which would create pilot confusion with multiple discrepancy lists and multiple sets of procedures for the same aircraft.

B. **Approval.** Operators with a FAR Part 125 MEL may operate aircraft under other FAR parts, such as FAR Part 91, subject to the following conditions:

(1) The operator is responsible for training all persons in the MEL's use, including the logging and clearing of discrepancies and the use of the A, B, C, D, etc., codes.

(2) Operators shall maintain a complete, current list of all persons trained and authorized to use the MEL.

(3) The operator is responsible for determining the aircraft's maintenance status on its return from a FAR Part 91 operation. The operator must accomplish this before the aircraft is put back into FAR Part 125 service.

(4) FAA Principal Operations Inspectors (POI) shall verify that operators can ensure an acceptable level of safety before authorizing persons to use the MEL under FAR Part 91.

Section 2 Procedures

1. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. **Prerequisites.** This task requires knowledge of FAR Part 125 requirements and FAA policies and qualification as an Aviation Safety Inspector (Operations). If applicable, the inspector should hold the appropriate type rating for the aircraft for which the operator seeks MEL authorization or be rated in the same category and class of aircraft.

B. **Coordination.** This task requires coordination with airworthiness and avionics and possibly with the appropriate AEG or FOEB.

3. REFERENCES, FORMS, AND JOB AIDS.

A. References.

- FAR Part 91
- Order 8700.1, General Aviation Operations Inspector's Handbook
- Order 8400.10, Air Carrier Inspector's Handbook
- Advisory Circular 125-1, Operations of Large Airplanes Subject to FAR Part 125

B. Forms.

- Form 8430-7, Master Minimum Equipment List

C. Job Aids.

- MEL Approval Job Aid, Figure 86-1
- Sample letters and figures

5. PROCEDURES.

A. **Certification Process.** If applicable, at the appropriate point in the certification process, give the applicant a copy of the MMEL for the particular aircraft, the MMEL Preamble, a sample title page, and a current copy of Advisory Circular 125-1.

- (1) Open PTRS.

- (2) Advise the operator to submit an original of the proposed MEL, its associated procedures, and any manufacturer recommended procedures for inoperative equipment.

- (3) Inform the operator of the (O) and (M) procedures for the proposed MEL.

- (4) Inform the operator that the MEL's provisions cannot be less restrictive than the MMEL.

B. **Receipt of Proposed MEL.** Upon receipt, compare the proposed MEL to Figure 86-1 and determine if the proposed MEL:

- (1) corresponds to the MMEL;
- (2) addresses all items required by the FAR;
- (3) is specific to the operation;
- (4) lists only equipment installed on the aircraft;
- (5) specifies appropriate operational limitations, e.g., placards or maintenance or flight crew operating procedures;
- (6) uses the ATA code numbering system.
- (7) has a revision system; and
- (8) incorporates references from the operator's policies and procedures manual.
- (9) The proposed MEL should contain the (O) and (M) procedures. If the (O) and (M) procedures are already stated in another document, ensure that the applicant has referenced that document.

- (a) Ensure that the (O) symbol denotes a specific operations procedure that must be accomplished before or during operation with listed items of equipment inoperative.

- (b) Ensure that the (M) symbol denotes a specific maintenance procedure that must be accomplished before operation with listed items of equipment inoperative.

- (10) The title page must include the operator's name and the aircraft's make, model, and registration and serial numbers.

(11) The MEL may have an aircraft discrepancy record (optional).

(12) Ensure that the following are NOT listed on the MEL:

(a) type certificate data equipment;

(b) any equipment required by the airworthiness rule under which the aircraft is type-certificated;

(c) instruments and equipment required by AD; or

(d) instruments and equipment required for a specific operation in FAR § 91.213(b)(1)-(3).

(13) Ensure that the equipment indicated on the MEL is actually installed on the airplane.

(a) If so, approve the MEL.

(b) If not, indicate the discrepancies to the operator. Inform the operator that the MEL must reflect equipment installed on the airplane.

C. **Approval.**

(1) If the MEL document meets all of the above requirements, indicate approval by stamping each page "Approved." Note the FSDO identifier and date of approval on each page, and sign each page.

(2) Issue the LOA (Figure 86-2).

(3) Issue operations specifications authorizing use of the MEL.

(4) Enter the MEL holder's information (name, address, MMEL number, etc.) into the MMEL Subsystem to ensure that the MEL holder receives MMEL revision notifications.

(5) Close PTRS.

D. **Disapproval.** If there are discrepancies with the draft MEL, inform the applicant in writing, listing the items that require correction. Indicate that all items must be corrected before the applicant can re-submit the MEL document.

E. **Resubmission of Draft MEL.** Determine whether all discrepancies were corrected satisfactorily.

Approve or disapprove the MEL.

7. MEL REVISIONS.

A. **FOEB Revisions.**

(1) Provide the operator with the revised MMEL.

(2) Instruct the operator to incorporate the applicable changes to the MEL within 30 days. Inform the operator to submit the revised MEL pages for FAA approval.

B. **Operator Installation of Equipment not on MMEL.**

(1) Inform the operator to apply through the FSDO for MMEL amendment within 10 days of installing the equipment.

(2) Explain the following to operators regarding MMEL changes:

(a) The operator should propose revisions on a form similar to FAA Form 8430-7. This assists FAA review and ensures standardization.

(b) The operator is responsible for furnishing any required substantiating data and for scheduling demonstrations and/or evaluation flights, as necessary.

(c) There can be no conflict with existing AFM limitations, emergency procedures, or AD's.

(d) The operator must substantiate an acceptable level of safety with an inoperative item, considering the next worst failure in flight.

(e) The operator must specify differences between proposed and existing MMEL items, when applicable.

(f) The operator must include an evaluation of the effect the inoperative item will have on crew workload. The FOEB will apply conditions or limitations, as necessary.

(3) Explain the following FOEB process for evaluating proposed changes.

(a) The operator submits the proposal to the FSDO along with any required substantiating data.

(b) The FSDO will review and forward the proposal, with recommendations, to the appropriate AEG.

(c) The FOEB will normally consider the proposal at the next scheduled FOEB meeting, if it receives the proposal before the established cut-off-date.

(d) The FOEB will forward the items it recommends for approval to the Flight Standards Service in FAA Headquarters for its review and approval. Once the FOEB receives Flight Standards' approval, it incorporates the changes to the MMEL via an automated system. The revised MMEL is then available to the FSDO for submission to the operator.

(e) The FOEB does not normally forward items it does not accept to FAA Headquarters. Unresolved items that are not published in the revision may be considered unapproved. The operator may resubmit unacceptable items with additional justification.

(4) Inform the applicant that once the FOEB approves the addition to the MMEL, the operator must amend the MEL. Instruct the operator to submit the revised MEL pages for FAA approval.

(5) If the FOEB denies the amendment to the MMEL, inform the operator that the equipment

cannot be added to the MEL. Remind the operator that the equipment must be operative when conducting operations.

9. TASK OUTCOMES. Completion of this task results in:

- A. Issuance or denial of an LOA.
- B. Approval or denial of a MEL document.

11. FUTURE ACTIVITIES.

- A. Discussing MMEL revisions with applicants.
- B. Issuance of a new LOA after revision of an MMEL.
- C. Approval of revisions to a FAR Part 125 MEL.
- D. Surveillance of holders of MEL authorizations.
- E. Possible enforcement investigation if operators do not operate in accordance with the MEL authorization.
- F. Cancellation of an MEL because of change of ownership, because of the operator's failure to comply with MEL requirements, or at the operator's request.

FIGURE 86-1 MEL APPROVAL JOB AID

Name of Operator _____ Certificate Number: _____

Address _____

	YES	NO	N/A
1. The MEL is current with the MMEL date and revision number.			
2. Contains the ATA Table of Contents.			
3. Contains the Preamble verbatim.			
4. Contains the Notes and Definitions Section same as the MMEL.			
5. All items addressed in the MMEL covered in the MEL.			
If no, include explanation:			
6. Items have been deleted.			
If yes, include explanation:			
7. Items have been added.			
If so, include description:			
8. Revision page is appropriate.			

FIGURE 86-1 MEL APPROVAL JOB AID *con't*

	YES	NO	N/A
9. Each page of the MEL can be matched to the MMEL to confirm revision number and date of revision.			
10. Describe the operations procedure for placarding:			
11. Describe the procedure for recording discrepancies:			
12. Describe the procedure for clearing discrepancies:			
13. Describe the procedure for carrying over items per the MEL:			
14. Describe how the time to fix the open MEL items is controlled (A, B, C, or D)			
15. There is a procedure for each O and M procedure found in the MMEL.			
a. Procedure describes who			
b. Procedure describes what			
c. Procedure describes when			
d. Procedure describes why			
e. Procedure describes how			
OR			
f. Procedures reference where the procedure can be found			

FIGURE 86-2 LETTER OF AUTHORIZATION

FAA LETTERHEAD**NAME AND ADDRESS OF OPERATOR**

Dear ____:

This letter is issued under the provisions of FAR § 125.201 and authorizes [name of operator] ONLY to operate [make and model of aircraft, n-number, and serial number] under the master minimum equipment list (MMEL), using it as a minimum equipment list (MEL).

This letter of authorization and the MMEL constitute a supplemental type certificate for the aircraft and must be carried on board the aircraft as prescribed by FAR § 125.201.

Operations must be conducted in accordance with the MMEL. Operations and maintenance (O and M) procedures for the accomplishment of rendering items of equipment inoperative must be developed by the operator. Those procedures should be developed from guidance provided in the manufacturer's aircraft flight and/or maintenance manuals, manufacturer's recommendations, engineering specifications, and other appropriate sources. Such operations or maintenance procedures must be accomplished in accordance with the provisions and requirements of FAR Part 43, 91, or 145.

A means of recording discrepancies and corrective actions must be in the aircraft at all times and available to the pilot in command. Failure to perform O and M procedures in accordance with FAR Part 43, 91, or 145, as appropriate, or to comply with the provisions of the MMEL, preamble, O and M procedures, and other related documents, is contrary to the FAR and invalidates this letter. All MMEL items that contain the statement, "as required by FAR" must either state the FAR by part and section with the appropriate FAR carried aboard the aircraft, or the operational requirements/limitations required for dispatch must be clearly stated. When the MMEL is revised by the FOEB, [name of operator] will be notified by postcard of the revision. [Name of operator] must then obtain a copy of the revision from this Flight Standards District Office (FSDO) or the FSDO having jurisdiction and incorporate any changes as soon as practicable, including Os and Ms as required.

[Name of operator] must develop O and M procedures that correspond with those listed in the MMEL. [Name of operator] must also list the "as required by FAR" by specific FAR Part and section or state the operational requirements/limitations for dispatch. These items must be contained in a document separate from the MMEL and must accompany the MMEL, preamble, and letter of authorization. They must all be on board the aircraft anytime it is operated.

Equipment installed on this aircraft (other than passenger convenience items such as galley equipment and passenger entertainment devices) that are in excess of what is required, and are not listed on the MMEL, must be operational for dispatch unless a request is made to this FSDO (or subsequent FSDO that has jurisdiction) to seek relief from the FOEB, through a revision to the MMEL, at the earliest opportunity for the FOEB to convene. If MMEL relief is sought, this FSDO (or subsequent FSDO) must be notified within 10 calendar days (including weekends and holidays) following installation. The operator may dispatch provided the excess equipment, if inoperative, is disabled or rendered inoperative, in accordance with all FAR. It is the responsibility of [name of operator] to endeavor to determine if O and/or M procedures must be developed for disabling, rendering inoperative, or removing the equipment. If so, any procedures that are developed must comply with all FAR. If MMEL relief is not sought, the FSDO need not be notified following installation of the equipment.

FIGURE 86-2 LETTER OF AUTHORIZATION con't

Should [name of operator] relocate its principal base of operations at [address], it must notify, in writing, both this FSDO and the new FSDO that will have jurisdiction within 10 calendar days following relocation.

This letter is issued without an expiration date and will remain valid until voluntarily surrendered by [name of operator], until [name of operator] ceases to be the operator of [aircraft n-number], or it is surrendered or revoked for cause by the FAA. In any case, should it become invalid, it must be returned to this office or the FSDO having jurisdiction within 10 calendar days from the date it becomes invalid.

STATEMENT OF OPERATOR

As evidenced by my signature below, I certificate that [name of operator] will operate [aircraft make and model and N-number] in compliance with the authorizations, provisions, and limitations incumbent with the use of this letter of authorization issued in accordance with FAR § 125.201. A copy of this letter will be made a part of the MEL file maintained by this FSDO and [name of operator].

Operator's signature

Title

Date / Signed by POI